

OUTREACH



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Key to the ultimately successful implementation of this report's recommendations and further ocean management initiatives is the support and understanding of ocean issues by the citizens of our Commonwealth. While many of us appreciate the ocean when we are enjoying it on a beautiful summer day or watching a storm, it is the rare individual who spends time serving on his or her town conservation commission, or participating in a beach clean-up, or teaching his or her children about the marine resources right here in our backyard, or even becoming aware of the full range of ways in which the state's oceans enhance the quality of our lives in Massachusetts. It is important for the Commonwealth to build an informed constituency for this public resource.

When citizens are motivated to participate in ocean management at any level, it is essential that they have access to data and information on ocean resources. The Technical Reports accompanying the Task Force's Report provide an overview of the wealth of data and information collected by state and federal agencies on our ocean resources. This information is a public resource that should be easily accessible to a broad range of users. Armed with adequate information, citizens can be effective participants in ocean management decision-making at the local, state, and even the federal and international levels.

We recommend that the state:

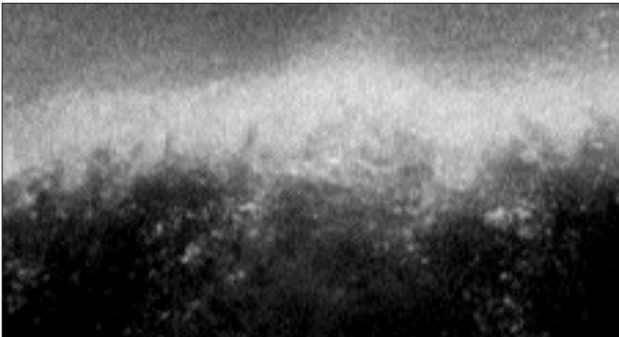
1. develop through a variety of means a new ocean literacy and stewardship ethic among all citizens of Massachusetts; and,
2. increase public dissemination of data collected on the Commonwealth's resources.

OUTREACH RECOMMENDATIONS

Outreach Recommendation #1: Ocean Literacy and Stewardship

Recommendation

The Task Force recommends that the Secretary make a formal commitment to developing a new ocean literacy and stewardship ethic amongst all citizens of Massachusetts. The initiative should target a multigenerational audience, and include the private and public sectors, academic institutions, politicians, advocates, the media, and the general public. It should include a K-12 Ocean Education project, as well as a broader public education strategy.



Justification

The Task Force recognizes that public understanding and support is integral to the long-term success of ocean management efforts. Consistent with our governing principles to encourage public participation in decision-making and promote respect for sustainable

uses and protection of our interdependent ecosystems, appropriate and effective management of our oceans will ultimately rely on informed and educated decision-makers and resource users.

Incorporating more meaningful information about our ocean resources as part of a K-12 public education should be given a high priority, as it is an investment in the future that makes eminent



sense. The ocean environment faces many immediate challenges and threats, however. The Task Force recommendations and their ultimate effectiveness will depend on expanded public education and outreach to the adult population.

Massachusetts is fortunate to have an entrepreneurial business community, cutting-edge technology community, passionate environmentalists, and some of the world's leading research and educational institutions - Harvard, Woods Hole Oceanographic Institution, M.I.T., and public institutions through the University of Massachusetts to name a few. An opportunity exists to tap into this wealth of expertise.

We are also extremely well positioned to capitalize on the high caliber ocean education work already underway in the Commonwealth by groups such as COSEE (The New England Center for Ocean Sciences Education Excellence) based at the New England Aquarium, University of Massachusetts, and Woods Hole Oceanographic Institution, the Massachusetts Marine Educators, and the many excellent private and public ocean education programs throughout the state. While we have a growing body of ocean curricula, programs, and marine educators, what is lacking is effective coordination, strategic focus for these efforts, and, most importantly, resources to sustain these efforts.

Implementation Plan

The Task Force recommends that the Secretary of Environmental Affairs immediately launch a school-based Ocean Education project as a part of the Ocean Management Initiative. The goal of the project is to promote a Massachusetts-focused ocean education program that leads to greater understanding and stewardship of the Commonwealths' ocean wealth. The audience will include private and public schools, higher education, and post-graduate programs, but will focus on K-12 public school children throughout the Commonwealth.

The Secretary should expand her existing Ocean Education Working Group to include key ocean education programs and participants, such as the Department of Education. Once dedicated staff is hired to coordinate this effort, the group should develop a strategic plan to coordinate the existing programs, expand programs to underserved communities, establish linkages between science and education programs, ensure that targeted outreach is undertaken, and identify resources necessary to implement the plan.

In addition, an advisory group should be assembled to fully explore options and guide the creation of a sustainable broader outreach plan. The outreach plan should draw upon, and complement, local, regional, national efforts to improve ocean literacy. The advisory group should represent broad interests, cutting across traditional sectors. Examples of representation might include SAGEE (Secretaries Advisory Group for Environmental Education), University of Massachusetts/higher education, marketing/public relations/communications firm, Department of Tourism, the media, non-profit ocean advocates, faith-based



organizations, resource users, scientists, federal, state and local coastline officials, private ocean engineering and consulting firms, etc. The plan should reflect efforts to align new ocean outreach with the Massachusetts Curriculum Frameworks development by the Department of Education, including with respect to the instructional constraints related to MCAS. Strategic planning, communication, and marketing consultants should be hired, when appropriate, to support the plan's creation and implementation. A designated office within EOEa should be staffed to coordinate committees and consultants and to implement various aspects of an outreach plan.

Legislation required: No legislation is required.

Next Step: The Secretary should staff the existing informal Ocean Education Working Group. A three-year strategic plan should be developed.

Timing: This recommendation can be initiated immediately.

Funding Required: Additional resources may be needed to coordinate this effort and initial funds are needed to support immediate projects (printing of existing outreach tools, Secretary's Ocean Excellence awards, workshops).

Potential Sources of Funding: EOEa capital funds, Environmental Trust, Gulf of Maine Council Implementation Grants, other state/federal educational and competitive grant funds.



Outreach Recommendation #2: Dissemination of Ocean Resource Data

Recommendation

We recommend increased public dissemination of data collected on the Commonwealth's resources, whether part of today's existing permitting and resource management programs or as part of a new, more comprehensive ocean resource management framework as we have proposed in Governance Recommendation #1. Such information might include: an index of all state-funded ocean resource and use data; data collected in support of permit applications or as part of permit requirements; and data collected with state-issued scientific permits. Such data should be made available to interested parties for a nominal fee, accompanied by documentation to set the context for their proper use. The index should include geographically referenced long-term and short-term data sets, project specific resource surveys, and have links to the actual data and reports. To the extent feasible, all data producers should be responsible for making their data available to the public according to protocols established by the state, and via web sites, web-mapping tools, or through existing publicly available databases (such as MassGIS). Data providers should be responsible for assuring that any data they provide is quality assured and represents sound science.

Justification

Data on ocean resources and uses in Commonwealth waters are largely difficult for potential users to locate. To the extent that public funds support the collection and/or interpretation of this data or support public permitting of private activities (e.g., Chapter 91 permits, MEPA reviews, approvals to site facilities in Ocean Sanctuaries), it is incumbent on the state agencies to make data available to the public, consultants, students, researchers, and other users. Substantial amounts of data are collected in support of permit requests and scientific research, primarily by environmental consulting companies and academic scientists. Even when private entities (such as developers of energy or telecommunication facilities and commercial fishermen) are required to supply data to state agencies, such data are generally not accessible by the public, may use

multiple and varied data protocols, and are generally difficult for parties to access and combine with other information. MassGIS, the Massachusetts Ocean Resources Information System (MORIS), and the Atlantic Coastal Cooperative Statistics Program (ACCSP) are examples of data management systems that index and provide access to many existing datasets; however, many datasets remain unavailable and the lack of a central listing of all data sets remains an impediment to full public access. Access to data, including data from state funded programs, permit requirements and research, is imperative for a thorough understanding of estuarine and marine habitat and life, evaluation of proposed projects, and improved ocean resource management. This initiative requires a modest investment in funding.

Implementation Plan

To fully realize the value of ocean resources data collected in Massachusetts and to ensure appropriate application of these data to ocean resources management, a thorough list of data sets needs to be compiled and organized. Agencies that collect substantial volumes of data, manage projects that generate data, review permit-related data, and provide state-issued scientific permits used to generate data should be responsible for supplying such data to a state-wide index. The data should be supplied in an appropriate format with complete descriptions of data collection methods and guidance as to the appropriate use of data (metadata). A government program, such as MassGIS, should be identified to manage the list and dissemination of data.

Legislation Required: Not applicable.

Next Step: The Secretary should appoint an agency to coordinate and disseminate the data index. State-funded programs and research that collect data should be initially indexed, and followed by an index of permit-related data.

Timing: Data management is an ongoing effort that includes government and non-government organizations. The appointed agency to manage this effort should identify a working group to guide this process by September 2004.

Funding Required: This effort may require additional resources to initiate and maintain the data index.

Potential Sources of Funding: State capital funds. NOAA (through CZM grant), and/or EPA.

